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**PARADOX IN BUSINESS
Towards a practical utility for paradox in business organizations**

Thesis writing
In
Industrial Management

2018

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Topic of the master's Thesis:

Paradox and business: Towards a practical utility for paradox in business

Supervisor:

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Degree:

Master of Science in Economics and Business Administration

Major subject:

Technology management

Degree Programme:

Industrial management

Year of Entering the University:

2017

Year of Completing the master's Thesis:

2019

Page: 80

ABSTRACT:

Paradox studies offered vital and timely insights in the process of replacing the either/or thinking to both/and thinking. Regardless of this achievement, the paradoxical complexity of the paradoxical tensions has much increased in organizations due to the fast pace of change in these organizations on one hand. On the other hand, methods, approaches, strategies and models to attend to both the poles of a paradoxical tension seem to have maintained a theory driven stream. I use brain plasticity literature to unpack the knowledge on brain ability to adapt to chosen behaviour and alter itself on different levels even its structure to satisfy it. I used behaviour literature to support and complement the literature of brain plasticity that requires a behavioural change to incite the plasticity. Building on this literature, I develop an approach that helps combine the paradox theory literature with practice in a form of a practice utility that resembles a business simulation game, in which organizations' executives practice and move up in mastery levels of managing the tensions of a paradox. Mixed research methods were used for this study. The empirical data were collected from a survey of 48 middle and senior level business executives.

The insights of the empirical findings suggest a fair knowledge on paradox in business organizations, a will for a behavioural change towards an approach to managing paradox by practice. A digitized business simulation platform was chosen as the best form to present a utility to organization's executives.

KEYWORDS

Paradox, paradoxical thinking, managing paradox, practice utility, brain plasticity

1. INTRODUCTION

This section will provide a general understanding of the topic of this thesis and what its aim will be. Background and context of this thesis will be started and the problem area of the paradox tensions in business organizations will be discussed. Subsequently, the research problems will be defined. The significance of the topic of this thesis will be mentioned. The scope and limitations of this thesis, as well as the overview of the structure of this thesis will be provided.

1.1. Background and context

The world of science is in a constant speeding quest towards demystify the secrets of the environment we live in; along the way, more and more terms are coined to keep up with this leap (Neuwirth, 2018).

Paradox comes from Greek words “*Para*” which means beyond and “*Doxos*” which means belief (Kunz, 1998); it is a word that was inserted to the English language in 1616, in which it was defined as eccentric, likewise it was defined by John Bullokar an English Expositor as “*An opinion maintained contrary to the commonly allowed opinion*” (Martinich and Hoekstra, 2016:626) . During that period and onwards this word bewildered the common opinion and an eccentric quest to demystifying its uncertainties, chaos and ambiguities reached different fields of studies including business studies.

Paradox due to its abstract understanding has been known for many definitions. To Schad (2016) paradox underlies the tensions between independent elements (Raisch et al., 2018). Webster’s dictionary defines paradox as “*A statement or a proposition seemingly self-contradictory or absurd, and yet explicable as expressing a truth*” (Fletcher and Olwyler, 1997). According to Lewis (2000) paradox denotes

“elements that seem logical in isolation, but inconsistent when juxtaposed” (Lewis, 2000). Again, paradox to Sainsbury (1995) *“... an apparently unacceptable conclusion derived by apparently acceptable reasoning from apparently acceptable premises. Appearances have to deceive, since the acceptable cannot lead by acceptable steps to the unacceptable. So, generally, we have a choice: either the conclusion is not really unacceptable, or else the starting point, or the reasoning, has some non-obvious flaw.”* (Sainsbury, 1995), to For John Leslie Mackie (1917-1981) paradox is the complete argument.

Paradox is an old concept and its roots go deep in the ancient teachings throughout the world and marked in literatures such as the Tao Te Ching and in Judeo-Christian bible (Smith and Lewis, 2011a). Nonetheless, it was thanks to Willard Quine (1908-2000) in his book *The Ways of Paradox* (1966) that is the first to propose an accepted systematization of paradoxes in which he classified paradoxes into three categories.

Paradox is not a mere contradiction and the advantage of its nature is that it stimulates discussion (Hart, 2006). However, it is perceived differently by different authors. To Rescher (2001) it is a dissonance, to Roy Sorensen paradox is a form of riddle, to Gareth Matthews is a conflict that is trapped within a conceptual truth and for John Leslie Mackie (1917-1981) is a set of irregularities.

Paradox is a multidisciplinary phenomenon that is perceived differently and appears to manifest in every activity an individual engages in and it is necessary to seek solutions to resolve and manage it.

In the business world, research on paradox explores how organizations simultaneously cope with the competing demands of daily business. Nonetheless, the answers to given paradoxical tensions using paradoxical thinking are amplified by the quotient of the different perspectives in which they

are perceived, the future thus can be recognizable from far, yet it is not predictable until it actually happens. That is where the benchmark of the actual results and the foreseeability of the organizations' managers come to conclusion (Holbrook, 2002). To reach higher managerial levels, the paradox approach dissolves the limitations set by the managers' minds, culture, principles, environment and many other factors on how things are done or supposed to be done (i.e. handling the puzzling situations managers are faced with in their organizations, the questions they ask to solve an issue and the others that they do fail to ask, the need for managers to be in charge, yet find themselves losing control) all reflect a way of thinking a perspective and a need for solutions to regain consistency and balance. According to Quinn, what differentiates us from each other is the way we look at and perceive the world (Quinn, 1988), in other words, what differentiates the organizations' executives is their way of thinking that keeps them from thinking about detail problems, issues and/or paradoxes' tensions in an ordinary manner and engages them in a thinking that excludes easy and simple answers.

This paper leans on the following key literature fields in reaching the conclusions.

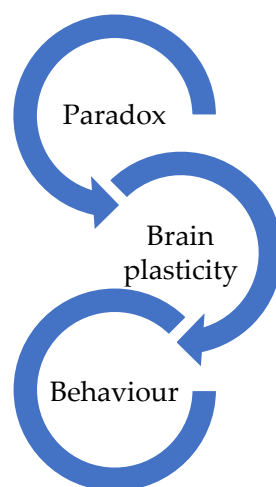


Figure 1. Key literature fields used for this paper.

1.2. Purpose statement

The aim of this paper is to review the existing paradox literature, in moreover approach the concept from the brain plasticity and behaviour perspectives to provide a contrasting understanding for the idea of facing the paradox in business organizations, in other words, developing a utility that would give us the possibility to engage these paradoxes, embrace them, cope with them and use them to our advantage. Sustain and support the self-development of organization's senior executives in a sense that the more efforts invested in the development of an understanding to paradox, the more success organizations will achieve, and the more organizations succeed the more challenges arise, hence, more practice for executives is required. Propose a model for a learning process for a utility that would facilitate the process of shifting the paradoxes in business organizations from theory driven to a more practical approach.

1.3. Research Questions

This work besides providing a practical understanding on the process of shifting the theory driven literature of paradox to a more practical utility, it will seek answers to the following questions

1. What is the business view on paradox in organizations?
 - a. How persistent is the paradox issue in organizations?
 - b. What impact would paradox have on business success?
2. What best possible practical approach that would facilitate the process of resolving the paradox tensions in organizations?
 - a. Is there a need for a practical utility?

- b. In what form this practice utility would be presented to provide optimal practice results?

1.4. Research design

To investigate the paradox in business organizations and draw the conclusions, I conducted a review of the existing literature on paradox and I approached it through the perspectives of brain plasticity and behaviour literatures. I conducted a mixed method approach to first evaluate the knowledge quotient on the paradox existing in business organizations through the executives. Second to evaluate the readiness to change in management and/or leadership behaviour towards shifting the paradox theories, paradigms and/or models to a more practical approach to facilitate the process of embracing it, coping with it and setting it in the hearts of organizations. Third was to find the best possible form in which the utility that would contribute in shifting paradox from theory to practice should be presented. The following Fig. 2 gives an overview of the process of the research.

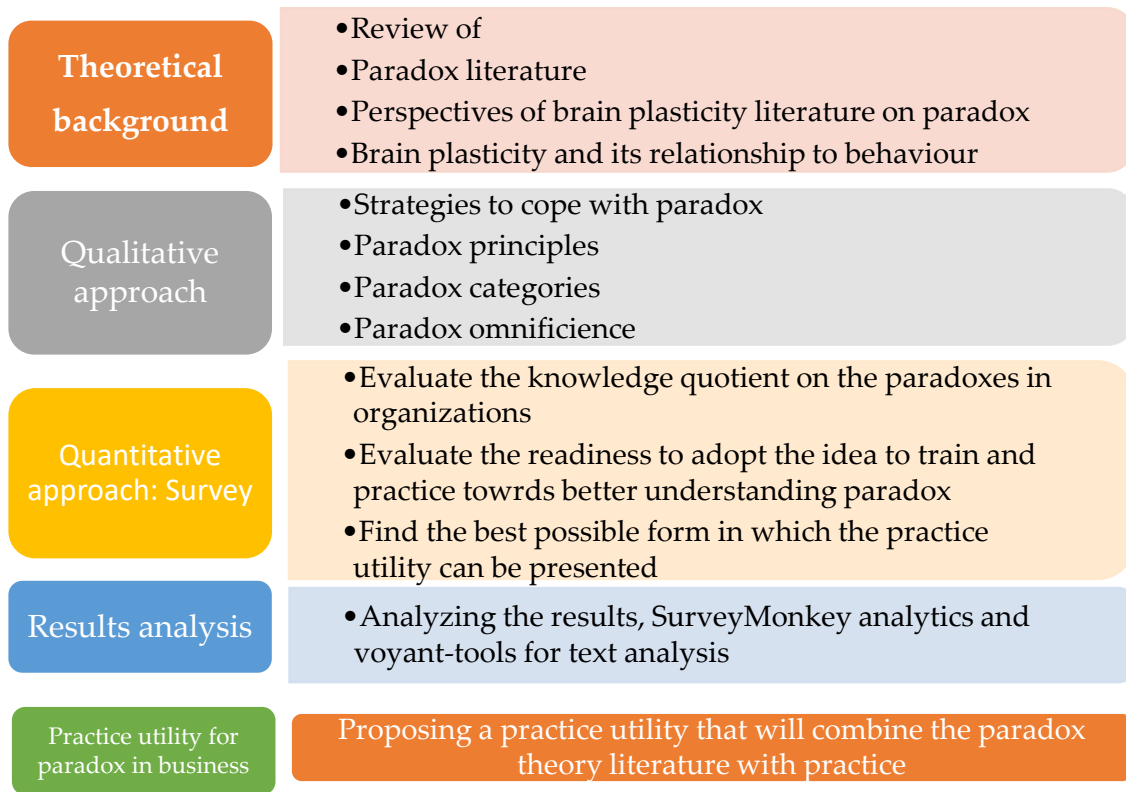


Figure 2. Overview of the research design process

1.5. Significance of the topic

This thesis supports the process of grasping, embracing and coping with the haphazardness of paradoxes in business organizations. This work also contributes in faltering the ambiguity and the chaos of paradox tensions and helps in charting the course of action by senior executives to make the best out of the paradoxical tensions arising in their organizations. Sheds light on paradoxical thinking as an ability and a skill and increases the awareness on the need to switch the focus of managing paradox by means of applying the existing strategies, methods and approaches by means of a practical utility. Syllogize the literature to draw the conclusions on the latency of paradox in the human brain as well as the ability to think paradoxically and its best application in the practical

utility. Thus, I expect from this thesis to stretch the known premises of business management practices and contribute in improving academic competence, develop employability skills of future business senior executives while improving the existing leaders and contribute in creating ambidextrous organizations by investing in their senior executives' development and skilfulness in every business aspect.

1.6. Scope and delimitations

This work's first part will focus both on paradox as a concept and as an approach to management of apparent and probable to appear tensions that arise within organizations, as well as paradoxical thinking as a skill that requires development and training to make better use of it in the business world.

The effect of brain anatomy on brain plasticity and any internal or external factors on human behaviour will not be considered, rather, only the impacts of behaviour and environmental stimuli on the brain plasticity are considered within the context of the willingness to adopt, embrace and find better understanding to cope and resolve the paradoxical tensions in business organizations.

1.7. Structure of this work

This work will be drawn to follow the following structure:

Part one: Introduction

Here, is the introduction to the topic of the work supported by background and context, purpose, significance, scope and delimitations.

Part two: Theoretical background

In this section I will discuss researches, studies and books that have been theorizing about paradox, paradoxical thinking and paradox tensions.

I will discuss the development of studies on brain plasticity and behaviour and their pervasiveness and role in the evolution of the brain. The role of behaviour in inciting the plasticity and the impact of environmental stimuli on the brain and behaviour

Part three: Methodology and data

In this part I analyze and present the data. I draw conclusions based on this data in which I parry the unnecessary issues to the topic, hence, present the findings as insights to support the ideas introduced in literature and answer the research questions

Part four: Practice utility

In this section the focus is on the critical factors of the main idea of the practice utility which is meant to be integrated in the grandiose of business simulations in the near future assisted by a cling to paradox principles in business, delve into finding the optimal operation flow while keeping the paradox spur of the winning criteria and its main objectives active.

Part five: General conclusion

The final conclusions and recommendations will be drawn from the theory part's conclusion which is an adjunct to complete the purpose of this thesis as well as from the practice utility which is complementary to quantify the level of success in a future implementation.



Figure 3. Structure of the thesis

2. THEORITICAL BACKGROUND

2.1. Introduction

This part sheds the light on the main pillars of this paper, it describes the foundations on which the general conclusion is drawn upon and opens gates for future research.

Paradox as a theory has been approached by many authors such as Charles Handy, Jerry Fletcher & Kelle Olwayler, Robert E. Quinn, Tushman and many others in a manner that is mainly theory driven. In other words, these authors presented their ideas on how to manage the paradox of business organizations by providing theoretical frameworks, paradigms, and theory driven models and strategies (i.e. Poole and Van de Ven (1989) describe four managerial responses to paradox: (1) acceptance; (2) spatial separation; (3) temporal separation; (4) synthesis). Cameron (1986) and Lewis (2000) concluded that paradox quarrels to meet divergent targets in a long-term sustainability and to do so, it requires a continuous effort that is a deciding factor for organizations' success (Smith & Lewis, 2011). Robert Quinn (1988) also claimed that, in order to reach meta levels of thinking one shall surpass the current rational thinking that is based on reason and logic and think way beyond that (Quinn, 1988) where mastering to manage the paradoxical tensions is entirely dependent on having the ability for a holistic understanding of these paradoxical tensions.

Paradox is very confusing, unclear and ambiguous, the things expected to behave in a certain manner, do not usually do and it asks organizations' executives to live with those two or more opposing ideas simultaneously (Handy, 1995). On the other hand, organizations' tensions intensity increases with the business requirements of today which means, more and more paradoxes appear in

organizations due to the increase in expectations and the need to satisfy an objective over another and/or a strategic goal over another (i.e. Nokia management one of the many choices to hold on to stability over a change (Doz and Wilson, 2018)).

By the help of paradox and the will to center it as means to success in the hearts of organizations and choosing to invest in the quest to finding a possible approach to cope with its paradoxical tensions, manage them and eventually understand them and alter their existence to serve the business organization's interest will result in the gaze of business management and leadership alike to be focused on management personnel development and turnover thus the results will manifest in business organizations leading the cutting-edge systems and in creating highly innovative strategies, hence, reach beyond the known business practices and limitations.

2.2. Paradox and Paradoxical thinking prominence

Studies of paradox have focused on adopting alternative approaches to solving organizational tensions by exploring, surveying and investigating the possible simultaneous answers that might attend to these tensions in an organization (Smith and Lewis, 2011a) where the leader's response to these tensions is the crucial factor that determines the organization's future success (Quinn, 1988). More recent studies have identified clearer clues in the process of understanding the framework of operation of contradictions and polarities of paradox in organizations as such of Smith and Lewis (2011) and their dynamic equilibrium paradox model. The polarities of a paradox manifest equally from each side and considered both equally and fully present. For such reason paradox research aims at discovering how these polarities and tensions are connected to one

another and how they interact even though at first glance might seem to require a compromise and oftentimes posed as dilemmas to enforce the need for a choice.

Organizations' executives are at the first line to experience the intensity of the paradoxical tensions imposed by mostly their business field of activity, their first reaction the symptoms determines their organizations' fate.

According to F. Scott Fitzgerald *"The test of a first-rate intelligence is the ability to hold two opposed ideas in mind at the same time and still retain the ability to function"* (Hayes, 2009). The existence of paradox thus has entailed the need to understand it, in its turn gave birth to paradox thinking or paradoxical thinking; to Fletcher and Olwyler (1997) paradoxical thinking is a process to be learnt to be able to generate unusual view points leading to a continuous change in perception when confronted with contradictory situations till being able to recognize the value of both the tensions confronted with and express their qualities to achieve a value (Fletcher and Olwyler, 1997), nonetheless, according to Dacher Keltner, it is the kind of thinking that identifies contradictions, opposites and dualities consciously, hence determines how the divergent span of these contradictions is interdependent to a future key purpose of an organization (Keltner, 2016). As a result, paradoxical thinking is a much-needed ability that is based on a different way of contemplation when attempting to solve paradoxical tensions, it is skill and mental dexterity that is sought not only in organization but in everyday life as well. Its principles according to Boaz Hameiri et al. are *"Expressing amplified, exaggerated, or even absurd ideas that are congruent with the held conflict-supporting societal beliefs"* (Hameiri et al., 2018).

Consequently, one could conclude that paradox involves paradoxical thinking. Their prevalence is not only in organizations, it is in every life aspect (i.e. Paradoxical Thinking as a Conflict-Resolution Intervention by (Hameiri et al.,

2018)), henceforth, to find a reason to peruse it, understand it and use it -knowing that paradox excludes at the same time any compromise and/or simple choices, which if other, will have a boomerang effect back on leaders on an individual level and on an organization on a corporate level (Schuijt, 2011) - requires organizations' executives to construct three senses according to C. Handy: " *a sense of continuity, a sense of connection and a sense of direction*" (Handy, 1995).

Paradoxical thinking goes against the commonly accepted ways of viewing issues and fights the need to solve, control, manipulate and fix the issues in hand, rather room for development, learning and assimilation of the knowledge gained by interacting and exposing oneself to the paradoxical tensions allows a relatively better understanding of the value of both qualities of the tensions, nonetheless, to attain the this phase, the path is discomforting and challenging because as mentioned above paradoxical thinking seems illogical and contradictory to common sense, however, to sustain the high performance and achieve higher than the known success limits, it is necessary to encourage oneself to be paradoxical (Fletcher and Olwyler, 1997) and there is no better method to do so but to literally face paradoxical tensions and attempt to paradoxically think of a way that brings both tensions together to allow embryonic solutions to emerge.

2.3. Introduction to paradox principles

If it is to bypass the barriers of the paradoxical tensions appearing in the day to day business practices, organizations of the future shall require knowledge and deftness to be able to fully take advantage of both the contradictions and polarities of arising issues and beget a clear view of the course to be taken to understand, achieve divergent goals simultaneously, thus, sprout balance along the process, for this matter, a call for paradox as a dynamic tool and paradoxical

thinking as an ability is required to not only sprout balance but also to hone the organization foci while shepherding health and performance (Keller and Price, 2011) and contribute in ending the era of belief that hogged on business world.

Price Waterhouse LLP has drawn five principles, that are not only to be used to manage paradoxes in an organization but also to be used as pillars to build future strategies of management of paradoxical tensions, moreover, it is necessary at the same time keep a zoom in/out mindset - a process of adopting a mindset that points towards the centre of the issues faced including at the same time the periphery that surrounds it- that will enforce the connections between the sub principles and the concept in which these principles were conceived simultaneously.

On the other hand, in *The Paradox Principles* book, the author recapped the principles on which future attempts to dissolve the paradox tensions in organization. Nonetheless, many aspects of the books emanate from Charles Handy' book *The age of paradox* and it was the base on which the author built these principles under the end-result pretext of attaining high-level performance through the balancing of conflicting demands (Goldstein, 1999). Moreover, the paradox principles are stated in a paradoxical manner that are not necessarily understood by organizations' executives and do not satisfy both the perspectives of the complexity theory and the reversed effects theory. The oxymoronic nature of these principles have not been pursued thoroughly by the author for instance, empowerment requires firm leadership, the contradiction is clear by the spur of meaning of both firm leadership and empowerment; yet if I delve deep enough, I notice that empowerment is only one side of the coin because on the other side, subsidiarity manifests. The substitution of subsidiarity with empowerment might result in the same outcome, or it develops and achieves different meaning

that plunges organizations into different outcome. As a result, the zoom in/out mindset is required not only to take account of the obvious but to also surmise the hidden, the peripheral aspects and be able to foresee the different meanings and combinations in any theory to help adjust them to the organization's needs. By the same token, these principles, their interplay and their relation to the organization still are mainly theoretical despite their complexity, the need thus to develop a utility that would provide the necessary practical framework on simulating how these principles could be applied in organization in different aspect of business without the high risks of directly trying to implement them in an organization is very much required. These principles and their interplay in organizations are depicted in the following figure.

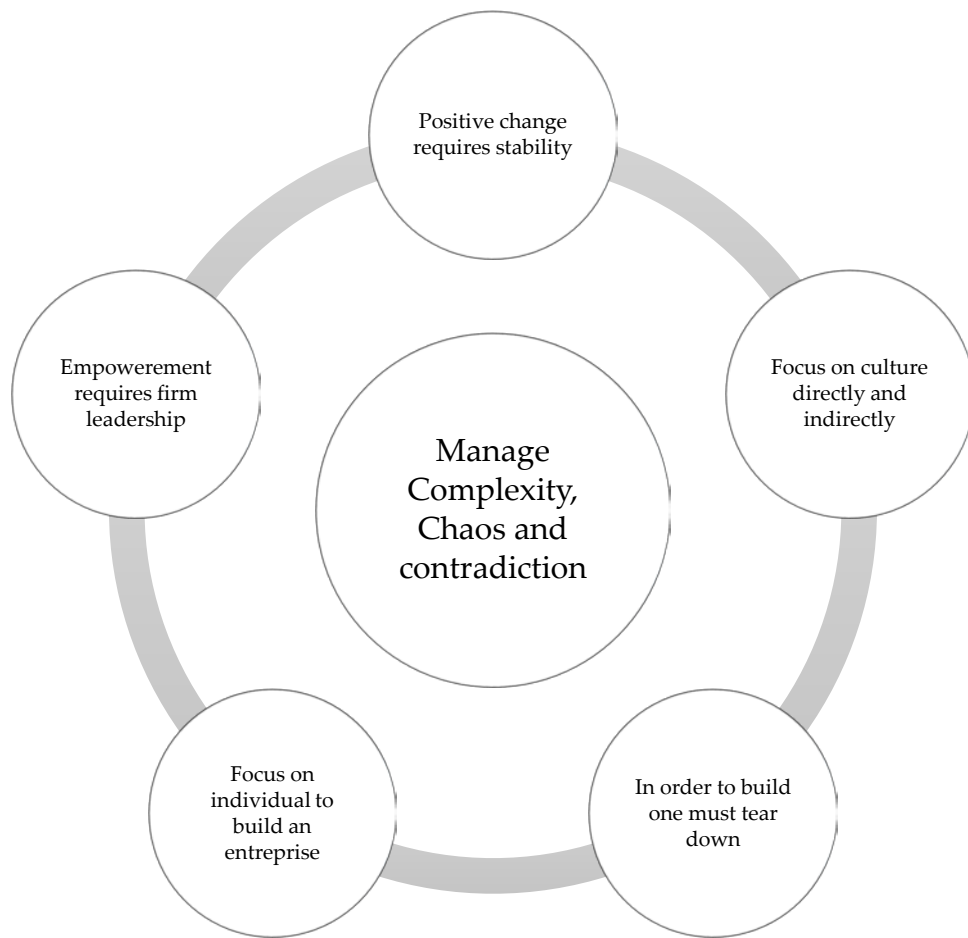


Figure 4. *The paradox principles interactions with an organization's tensions (Price Waterhouse LLP, 1996).*

2.4. Navigating paradox in organizations

2.4.1. Managers and leaders

Leadership and management are two distinct concepts one from another, oftentimes, these two concepts are used interchangeably (Kumaran, 2012). Leadership and management are synonymous and overlap, many of leadership tasks fall within the boundaries of management. Moreover, leadership and

management share the same goal which is the success of the business (Nienaber, 2010).

Kotter (2001) believes that leadership is the growing point of management and adds that many senior executives fail to recognize or acknowledge because it is the force behind any significant change in organizations (Kotter, 2001). Nonetheless, academics still do not agree on what leadership is constituted of or which of its practices can be emulated. Altogether, leaders have to act as managers and managers have to act as leaders (Allio, 2012).

In brief, the definitions of the agents of leadership and management according to Kouzes & Posner are as follows. A manager is the person in charge of putting things in perspective and keeping the organization and its goals on course, where the leader is the person in charge of drafting the organization's future (Kouzes and Posner, 1995). Moreover, Maxwell's to differentiate between a leader and a manager is to simply ask to create positive change in an organization, a leader is more likely to have an answer for that (Maxwell, 1998).

In order to steer this thesis towards the positive change it is up to propose, a need to compromise between a leader and a manager is necessary and to bundle the different names the person in charge of achieving an organization's success is important to exclude most of the misinterpretations and the misunderstandings of these agents and to use an umbrella term, leadership that would comprise the various aspects and connotations that might be involved when management or leadership evoked (Schuijt, 2011) throughout the rest of this work.

2.4.2. Paradox close sibling terms, dilemmas and dialectics

To get a better understanding of what could be paradox, it is necessary to differentiate it from its close sibling terms that oftentimes contribute in the digression of its meaning, which are dilemma and dialectic.

Dilemmas are moral issues (Mayer, 2015; Schuijt, 2011), they are competing options that corroborate to cling to one choice over another; paradox tends to be posed as dilemmas to enforce the need to make a choice at the end (Mayer, 2015). The demise in taking paradox as a dilemma is that, it is a temporary solution for the problems or tensions undertaken, and eventually they will resurface, thus, the whole process needs to be repeated again since the core issues have not been handled.

Dialectics on the other hand, are those contradictory issues that could be resolved by adopting a dialectical methodology that consists of thesis vs antithesis that results in a synthesis (Smith and Lewis, 2011a). However, paradoxes are closely associated with the use of dialectical methodology (Kainz 2008), yet differences that appear in orientation, assumptions, scope and in terminology make the two concepts disproportionate (Kuhn, 2012). Moreover, to Pinto (2001) dialectic's ultimate goal is to mentally grasp a world that is tormented by paradox (Raisch et al., 2018)

2.5. The paradoxes of an organization

Paradox in business organizations runs deep like roots, in every aspect of business manifest paradoxical tensions. The competing tensions and demands pervade the daily practices and permeate the choices of organizations (Miron-Spektor et al., 2018). The paradoxes arising in organizations are numerous, nonetheless, some organization aspects are prone to produce paradoxical tensions than others (Brulhart et al., 2018). The paradoxes of strategy, the

paradoxes of organization and management and the paradoxes of leadership are the salient paradoxes in business organizations and have been recognized in literature as the main paradoxes that organizations are faced with. Moreover, often times, these paradoxes of different contexts and aspects of a business organization overlap which makes them hard to recognize (Guilmot and Ehnert, 2015). Correspondingly, I will attempt in following to explain these categories of paradox and attempt to bundle them into one concept umbrella then highlight their interactions with a business organization.

Management and organizational paradoxes

The paradoxes of learning, performing, belonging and organizing are the apparent paradoxes of an organizational and managerial dynamics of a business organization (Breckenridge, 2005; Brulhart et al., 2018; Chae and Bloodgood, 2010; Gammelgaard and Maalouf, 2016; Jarzabkowski et al., 2013). The organizing paradox is often consists of an organization's structural tensions arising from inherent polarities within organizational whole of organizations (Lewis, 2000). The performing paradox is the where middle managers confuse the roles of their responsibilities and play contradictory roles in order to maintain the organization performance (Lüscher and Lewis, 2008). The learning paradox however, is the paradox of the tensions arising from using the past as base and reference while simultaneously having to disregard and move beyond it (Lewis, 2000; Smith and Lewis, 2011b). The belonging paradox, this paradox is salient during business organization restructuring (Jarzabkowski et al., 2013) where tensions arise between values and beliefs (Lewis, 2000; Lüscher and Lewis, 2008).

Leadership paradoxes

While paradoxes provide leaders better chances to learn about themselves, their employees, their customers and their organizations (Locander and Leuchauer, 2006). The leadership paradox manifests when a leader is simultaneously

attending the tensions of the inertial forces on one side and the adaptive changes to an organization on the other (Garg, 2016). Nonetheless, it is not always about the leadership tensions arising when attending to organizations' demands, the paradox manifests also in the leader's style, approach or view on leadership that consequently overlap with many other paradoxes that fall under the context of leadership paradoxes (Farrell, 2018; Meyer and Meijers, 2017). The following are some examples of the paradoxes under the context of leadership paradox.

- Right and wrong paradox
- Distortion paradox
- Perspective paradox
- Authenticity paradox
- Development and effectiveness paradox
- Team and time paradox

(Bolden et al., 2016)

Strategy paradoxes

Michael Raynor argues in the book *"The Strategy Paradox"* that due to the numerous uncertainties and the number of unknowns of the business world future, the same business strategy that promises high returns simultaneously carries high risks of failure. Therefore, Raynor stresses that business executives need to set navigating the uncertainties and the unknowns to be the top priority while achieving results is a side quest (Kuah, 2009; Moyer, 2008). Opposing ideas usually lead to conflicts (Wakayama and LaPierre, 2017) and taking a strategic commitment requires the consideration of aligning the unknowns and uncertainties of the future. Nonetheless Bob De Wit argues that a discussion between parties of opposed perspectives however leads to a new understanding of both (Wit, 2017).

Companies' leaders design strategies based on their perspective of how the future would be for their companies and vice-versa (Gray, 2013), strategic flexibility thus is the approach to manage the strategy paradox according to Michael Raynor (Gray, 2013; Kuah, 2009). Some examples of the paradoxical tensions that fall under strategy paradox are as follows.

- Logic and creativity paradox
- Deliberateness and emergence paradox
- Resolution and evolution paradox
- Market and resources paradox
- Responsiveness and synergy paradox
- Compliance and choice paradox
- Control and choice paradox
- Globalization and localization paradox
- Profitability and responsibility paradox.

(Wit and Meyer, 2010: 27-264)

In order to prepare a base start of the paradoxes required to engage in the process of providing a practice utility I resort to the following figure that depicts the paradoxes and their inter-relations to an organization day to day practices.



Figure 5. Paradoxes and their inter-relationships to an organization day to day practices.

There to observe, the paradoxes that surround a business organization are numerous and if one scrutinises each, there will be endless discoveries of different paradoxes, dualities, dilemmas, dialectics, dichotomies and oxymora that run like roots deep in business organizations and to summarize, the zoom in mindset – a process of adopting a mindset that points towards the centre of the issues faced and excluding the periphery that surrounds it- alone in this case will create an endless fission process chains that might not necessarily be an advantage to the business purpose; since by doing so, organizations will be trapped in the limitations they set along the process and at the same time blinkered to the possible resolutions that may lie elsewhere.

2.6. Paradox management

Organizations are found amidst a tempest of theories, strategies and management techniques also, known as techniques du jour, that seek to resolve paradoxical tensions. There is no right or wrong techniques, strategy or theory each one serves a purpose and each one is applied as perceived to set the sail of the organization to the favoured wind that leads to success, however these techniques and strategies have not contrived to somehow tap into the knowledge on the best way to resolve current and future paradoxical tensions which is one of the main setbacks, because the future is highly unpredictable and also have not helped but to confuse organizations' grassroots, create chaos and contribute is spreading lethargy that leads to the loss of the organization's winning edge (Raynor, 2007). Nonetheless, taking in consideration that paradox is confusing, ambiguous and equivocal, it demands from us to live and operate with two paradoxical opposites simultaneously (Handy, 1995), it is reeling and cannot be avoided in an organization's day to day life. However, managing and organizing paradox is necessary, that is translated in the increasing number of books, scientific articles and researches either empirical or conceptual, where the number of approaches, responses, strategies and theories have multiplied each in their respective perspective; amongst them, Lenette Schuijt who has proposed four strategies to cope with paradox as a concept and they are as follows:

- ✚ Acceptance strategy: it all starts within us, accept the existence of paradox alongside the day to day life in organizations, acknowledge the existence of dualities, polarities and learn to live alongside them.

- ✚ Confrontation strategy: for a leader confronting the paradox is basically including both the opposing poles in the search for answers. Most of the time it is a very difficult task since it is directly connected to the leader as an individual,

where the personality, ambition, career, merit and other drivers might influence that leader to lean on one side of the answer rather than on both. Therefore, this strategy encourages a close examination of the unknown aspects, where consulting and having different opinions will broaden the scope of answers.

✚ Transcendence strategy: while this strategy could be temporary, yet it consists of exceeding the paradox in hands to search for a framework where this paradox per se becomes not a paradox or dissolves due to its different context of interpretation.

✚ Toying with paradox of strategy: a strategy requires good understanding of the previous ones, when one realizes that apparent contradictions conceal patterns, one can consciously use the paradoxical nature of things and can intervene in a completely contradictory approach.

(Schuijt, 2011)

Many other authors have also attempted to set a framework of different approaches to cope and attend to paradox tensions in organizations and amongst them: opposition, spatial separation, temporal separation and synthesis, proposed by Poole & Van de Ven in 1989 (Guilmot and Ehnert, 2015). Others as Robert E. Quinn suggested that mastering the paradoxes lies in the ability to hold, test and experiment with the poles of the paradoxical contradictions or tensions and has emphasized that a need for a new way of thinking about our problems and our future is vital (Quinn, 1988).

Perceptions of paradox have not shifted much from the paradox original definition “eccentric”, additionally, research on paradox has contributed much in facilitating the process of leaping from traditional either/or thinking frames towards to a more integrative both/and approaches (Schad et al., 2016). Nonetheless, paradox scholars seek to satisfy the need to manage, cope and/or

resolve the paradoxical tensions of a paradox as if paradox has a solution (Sorensen, 2003), that led to them emphasizing types of paradoxes, collective approaches, and possible outcomes from applying the available theoretical models of resolving paradox tensions arising in organizations. The reflection of being able to solve the encountered paradoxes requires the need to be able to understand them and pay close attention to their dynamics and the relationships within paradoxes, however, due to the chaotic, uncertain and the ambiguous of their nature, the process of simplifying them using models approaches and of such has entailed complex realities that foster reductionism and incomplete theories by oversimplification (Schad et al., 2016).

Taking a consideration to the Golman & Loewenstein (2018) that argued, "The desire for clarity is consistent with an underlying drive for simplicity and sense-making" and sustained the claim with "*The aversion that people feel towards uncertainty is reflected in neural responses in the anterior cingulate cortex, the insula, and the amygdala. It manifests in physiological responses, as well*" (Golman and Loewenstein, 2018:148). Under these circumstances, it is apparent that shifting the process of theorizing in paradox research to developing a business environment that would give an opportunity for paradox trial and error theory.

Fletcher and Olwyler claimed that, to take advantage of paradoxes one needs to change perception until he sees the values of both opposing sides and know how to translate those values into qualities that will contribute much in the process of reaching resolute approaches to resolve the paradoxical tensions (Fletcher and Olwyler, 1997). Therefore, what would be the first step to initiate the process of becoming able to see the world in a different perspective.

It starts with accepting that the knowledge acquired up to the moment is not enough, what I know at present is already considered past, hence the future lies in the unknown.

Similarly, one needs to believe that emotional equanimity is of essence (Smith and Lewis, 2011b) because according to Huy, it is the cradle for paradoxical answers (Huy, 1999). Equally important to keep in mind that, the need to give rest to our sense-making when dealing with paradoxes is important, instead we should give way to paradoxical observation and encourage complex cognition (Handy, 1995) and look beyond those messy pictures of paradoxes by how and what these tensions would achieve if they were perceived and used simultaneously differently, which means that a need to teach oneself how to observe things in pairs, how to think about pairs and how to recognize pairs is an important factor and skill in an organization.

Therefore, the two important pre-required skills that one needs to start training and developing in order to begin the journey to exercise resolving the business paradoxes, develop and nurture the required thinking and understanding that will contribute in reaching meta levels of business leadership are as follows.

- Paradoxical cognition: In other words, the ability to recognize tensions. While contemplating as a leader on the organization's issues the need to exercise a thinking process that supports the idea that issues in business organizations tend to have more than one side, rather, they are presented in polarities and shall be instinctively cognized when confronted with even in the easiest of problems.
- Paradoxical observation: This skill is required when confronted with paradoxical polarities, there is a need to develop patterns based on the manner in which the issues, polarities or tensions have been handled,

what would have been solved using traditional thinking could be one half of an answer, the other half of this answer becomes apparent when juxtaposed with the opposite of the answer from the traditional thinking.

These skills are to create an atmosphere in which a leader will not be satisfied with simple answers under the pretext that paradoxes are vague ambiguous and there is no time for them in an organization (Schuijt, 2011), rather, a leader will invest the efforts and the time necessary to explore every possible answer for a given issue and learn from these answers by developing patterns of resolution for future uses, hence, these contributions to organization's efforts in handling the business paradoxes

In the long run, organizations acquire insights and knowledge each time a paradox is resolved, managed or coped with, that gives passage to a higher level of understanding. The right strategy to manage paradoxes in organizations is yet to exist based on paradox literature; our focus is to be on unity and on developing, discovering and training our brain to become aware of the different possible approaches to handle paradoxical tensions that is confirmed by Christian Jarrett who emphasized that training the brain will make us smarter (Jarrett, 2014). To do so, Bryan Kolb stated that human brain continuously changes structure and functions to respond to environmental changes (Kolb, 1995). In other words, if one train to observe, recognise and use paradoxes to one's advantage instead of trying to understand them and the uncertainty, ambiguity or chaos that surround them, one becomes better at using them, then maybe one day become able to fully understand them and ultimately alter their existence to the advantage for business organizations.

2.7. Introduction to brain plasticity

Brain plasticity is defined as the brain's ability to adapt to environmental changes such as pressures, experiences and challenges (Lövdén et al., 2010; Marzouk, 2017), the interest in exploring this research field has grown widely thanks to the major advances in the process of understanding how the brain works and the life-long capabilities of the brain to change and rewire itself to satisfy a simulation of learning and an experience (Costandi, 2016). The term per se was first coined by William James in 1890's which was applied to behaviour in his book *"The Principles of Psychology"*, nonetheless, the term was used in different forms starting from 1780 (Costandi, 2016). With attention to the usage of the brain plasticity in this paper, the definition of plasticity is exploited within the premises that serve the purpose of concluding that the brain during adulthood phase still changes structure to meet environmental and behavioural changes of an individual.

Years of research and experiments have left scientists confused about brain and its functions, it was until the 1960s that the scientist Paul Bach -Y- Rita provided evidence to the scientific community that the brain anatomy is actually not fixed and can restructure (Costandi, 2016).

The brain is in constant adaptation to changing demands (Lövdén et al., 2010), this ability to alter itself to change, restructure and rewire in different forms and on different levels to satisfy the requirements of an environmental and/or a behavioural change and retains the ability to be plastic throughout the life span supports the purpose of this thesis which is the fact of developing an environment that would help in shaping a behaviour to contribute in the process of seeking answers to the paradoxical tensions of business environment, also to

initiate plasticity of the brain to adapt to this behaviour and adjust itself to correlate with the requirements of the behaviour.

According to Bryan Kolb *"Indeed, there is little doubt that even thoughts can change the brain"* (Kolb, 1995:5) which is a key point in the development of this research. Based on the conclusions of brain plasticity as the brain's ability to change itself on various levels to satisfy an environmental and/or behavioural change and the quest of this research that is that the brain has the ability to foster, embrace and resolve the paradox of business organizations fall in the same scope.

2.8. Brain plasticity, behaviour and paradox

In this part I delve into the literatures of behavioural neuroscience, the human behaviour and the paradox that is surrounding these concepts.

The aim of reviewing this literature is to establish and support a relationship between brain plasticity and behaviour and highlight the correlation between the changes in the brain and the changes in a certain behaviour while taking in consideration their paradoxical sides.

2.8.1. Plasticity of the brain to respond to behaviour change

The human behaviour according to Skinner (2012) is a changing, fluid and fading process of the responses of an individual to internal and/or external stimuli (Skinner, 2012) and oftentimes denoted by the question *"Why people do what they do?"* (Manning and Curtis, 1988) in the respective scientific literature. Therefore, experiencing and learning are but legitimate to be qualified as behaviours.

The experiences an individual engages in, cause the brain to adapt to, restructures and rewires itself to be able to deliver optimum results for the new adopted behaviour (Kolb, 1995).

On the other hand, not every behaviour is relevant to plastic changes in the brain, according to Kolb and Whishaw (1998) there are important sets of behavioural distinctions that are relevant to plastic changes in the brain and skill acquisition is one of them (Kolb and Whishaw, 1998a), again an individual that engages in an activity of learning a new skill, for instance this new skill maybe to learn how to play a musical instrument, the brain will also engage in restructuring and rewiring itself to satisfy this new adopted behaviour and if the individual continuously and repeatedly engages in this same behaviour, the brain ultimately alters its functions (Kolb and Whishaw, 1998b; Lövdén et al., 2010), the result is translated in an excel in playing this musical instrument. However, learning to play an instrument by simple observation is not possible, same as learning how to ride a bicycle by watching others do it. The practice is an important factor that contributes in the learning and skill acquisition process (Katz and Rubin, 1999; Reynolds et al., 2014) as well as in the plasticity of the brain (Kolb and Whishaw, 1998a). Applying thus the principle of engaging in a behaviour that consists of practicing to bring together the paradoxical tensions in business organization in the hope of initiating a plasticity in the brain that would contribute in introducing better approaches, perspectives, strategies or models help to handle the paradoxical tensions in the future.

2.8.2. Environment Stimuli

As discussed above, changing our behaviour to acquire and learn a new skill provokes the brain to respond to these changes by initiating plasticity. The first

experiment Hebb conducted in 1947, in which the experimentation subjects were provided an enriched environment (stimulant environment) than the one they are used to, and the result was that the experiments subjects were found to have surpassed their performances in routine environments, taking in consideration that the experiment was conducted on rodents, monkeys and cats, it does not prevent to conclude that during human life span, the need for a change and be in a stimulant environment is one of the main pillars to learning and engaging in new experiences that ultimately contribute in shaping our behaviour (Kolb and Whishaw, 1998a); with this in mind, Lawrence F. katz (1999) confirmed that, in order for the brain to stay intact, exercising is a key element, where breaking the routine and maintaining a level of mental fitness is of great importance, he also believes that the brain calls for challenges and novelty to be able to flourish and perform and qualified this science to be "*Neurobics*" (Katz and Rubin, 1999); this author supports the theory of brain plasticity and based on it, he wrote the book about Neurobics in which he coined the term.

In brief, developing an environment in which an individual uses a paradox lens and exercises the best possible approach, strategy or model that would help in bringing both paradoxical tensions together to achieve greater outcomes.

The fact that a business organization's leader submits to the idea that he/she could have the opportunity to exercise is the beginning of the process of behaviour change. The idea that there is a platform that reflects real life business events with a culture that dictates that an answer that doesn't satisfy two or more paradoxical tensions is not admissible would force these leaders to break the routine, embrace novelty and invest in self-development and their organizations success alike.

2.9. Paradoxical side of brain plasticity

The study of brain plasticity has flourished in the 1980's (Kapur, 2011). Kolb and Teskey have yet again confirmed that practically every experience is qualified to alter the brain even for at least a brief period of time. Nonetheless, these changes are per se paradoxical since à priori, the changes themselves cannot be foretold or predicted, hence, Kolb and Teskey highlighted concerning this matter that understanding paradoxes will contribute greatly in developing the understanding of the way in which the brain functions, taking in consideration that many of the changes that happen in the brain are qualified as paradoxical and inadequately understood by scientists (Kapur, 2011). The following example is used by Kolb and Teskey to clarify and point out the mysterious ways in which plasticity works. At a certain level of proficiency in playing a musical instrument such as a piano, the brain starts to consider the fingers of the player as one single finger, plasticity of the brain is the reason for this phenomenon according to Kolb and Teskey, yet the same authors also confirmed that in order for the player to recover and regain the fingers' abilities to play the instrument, a stimulus for each finger is needed in order to incite the brain plasticity and make the player use his/her fingers again, as a result concluded by Kolb and Teskey, "*Plasticity caused the syndrome and plasticity reverses it*" (Kapur, 2011:359)

Given these points, the emphasis is that paradox not only subsists but it manifests itself in every aspect of business and in life. The above fragment of the knowledge that could be acquired from a further study of the brain is colossal and for the most part altogether paradoxes co-exist alongside. Nonetheless, as can be seen, the plasticity of a brain doesn't necessarily follow simple guidelines or rules. This latter does all that is required to satisfy the experiences undertaken and the behaviour adopted. For this reason, it is but legitimate to synthesize that

literature on brain plasticity and behaviour supports the practical approach this paper has undertaken to set the paradox as the beating heart in the business organizations of today, provide fresh perspectives on the current business practices and contribute in achieving superior results in the business world in the future.

2.10. Omnificence of paradox and paradoxical thinking

There is nothing that compels organizations or their executives to adopt paradox and invest in becoming paradoxical thinkers. Paradox doesn't provide easy alternatives and doesn't allow simple or oversimplified answers it asks us to live with opposite tensions simultaneously, it confuses because things do not behave the way we expect them to (Handy, 1995). The search for the right strategy, right approach and right method have contributed in developing patterns which are recognised as right or as foundations or buoys to attend to the demands of the business world, the rest that is not conceived is just dysfunctional that needs to be suppressed or eliminated as Charles Handy goes on to claim, *"I used to think that paradoxes were the visible signs of an imperfect world"* (Handy, 1995:12).

Be that as it may, paradox is an inherent aspect of nature and its pervasion in business organizations is hard to miss, attempts to reduce one of its tensions by trivializing, adding or changing a thought or a behaviour means soliciting the either/or thinking to resolve the paradoxical tensions thus passing on opportunities that might enable creativity and innovation and sustain curiosity (Smith, 2014). Reaching full potential simply not going to be possible by simply tending to one side of the issues chosen or seen fit.

The need for a different way of thinking is vital to be able to keep up with the fast-changing world of today (Handy, 1995) and be able to better predict the

future. Matina Horner, president of Radcliffe College from 1972 to 1989, pointed out that, *"We can't solve many of today's problems by straight linear thinking, it takes a leap of faith to sense the connections that are not necessarily obvious"* (Fletcher and Olwyler, 1997:154), that is to say that, paradoxical issues are not simply a matter of addition or subtraction.

Paradox engages us in thinking on a different level apart from the classic level of thinking, it magnifies the quotient of answers and solutions that we are expected to provide, moreover, Quinn goes on to sum this latter up by *"embryonic solutions emerge from individuals flirting with doubt and disorder"* (Quinn, 1988:21), this lies down frontiers for managerial and organizational dogmas and opens doors to adopting a new multidimensional organizational culture where an answer that does not satisfy two divergent goals is considered just not enough and its unlimited powers of creation manifest in the number of solutions that could be perceived from the two paradoxical tensions simultaneously considered.

As a result, considering all the above mentioned, organizations are more than compelled to adopt paradox and set it as their heart and invest in their senior executives' turnover that is the ability to think paradoxically, cognize the rising tensions and provides embryonic solutions to be able to achieve better work performances, better organizational health, holistic understanding, extensive knowledge, broader horizons and many other advantages that are yet to be discovered.

3. METHODOLOGY AND DATA

3.1. Introduction

In order to construct a more comprehensive understanding of the status of paradox in business organizations, demonstrate the ways by which it is perceived, and by which means it could be implemented to become an inseparable part of their daily practices. The positive view of the of business leaders on paradox is a one of the key factors that will guarantee the success of the search for an approach to embrace, cope and manage its paradoxical tensions in organizations, therefore, the need to look at an organization's issues from different angles is necessary to take in consideration the visible side of the issue and its polarity which is the invisible side and get better understanding of both. This process will encourage learning on a different pace than used to, hence develop and nurture paradoxical thinking abilities that would become the strategy to handle, manage and cope with paradox of business organizations.

The purpose of the empirical study was not to draw general conclusions on paradox in business organizations rather to gain deeper insights from quantifying the knowledge quotient on paradox amongst the business leaders of today, evaluate the readiness for a shift in behaviour towards the idea of practicing to get better at coping, managing and handling the paradoxical tensions that arise in organization, in like manner, get an understanding on how the proposed utility in this thesis best presented to support the learning process by practice for the business leaders, scholars, students and individuals with interest in the quest for demystifying paradox in business.

3.2. Data collection

The primary source of empirical data was a survey for the purpose of gathering information from respondents of company representatives from different departments, business leaders, business owners and third parties such as ResearchGate community and personal acquaintances in the field of leadership and business management.

The answers received were in total were 48 and were gathered by means of the survey link. It was shared with ResearchGate community and with the personal acquaintances in the business field.

The questions were characterized by open and closed end questions. The questions were clear and relatively short considering that they are meant to gather empirical data on paradox in business organizations, nonetheless, provided easiness and clear understanding of the point I wanted to pass through and the perspectives of answers desired as outcomes. The outcome was translated by an average time spent on the survey which was bit more than 10 minutes with a 100% completion rate according to SurveyMonkey analytics. The respondents were chosen based on their position, education level, their insights and their abilities to comprehend the idea of embracing, coping and managing paradox and the possibility of practicing to better handle it on the proposed platform in this thesis.

3.3. Data analysis and results

This section looks at the answers received from the survey by analysing them using SurveyMonkey analytics (SurveyMonkey, 2019) for the empirical responses provided by the survey and a text analysis tool (Voyant-tools, 2019) for the open-end questions.

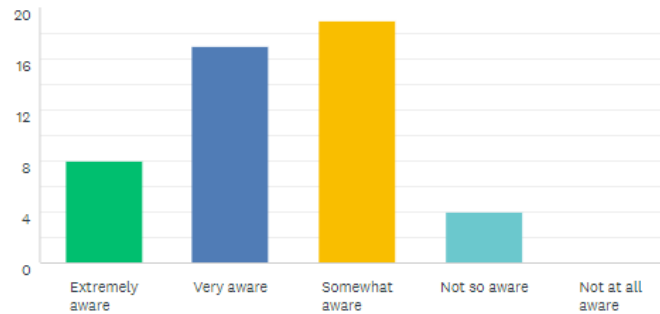
The analysis is conducted thematically according to the research questions that were to be answered by the survey namely: What best possible practical approach that would facilitate the process of resolving the paradox tensions in organizations that comprised the following sub questions. Why there is a need for a practical utility and in what form this practice utility would be best presented to provide optimal possible results. Conclusions are therefore drawn in reference to the literature review and presented in this section, taking in consideration that the survey conducted received 48 responses. The analysis shall start by examining the introduction part of the survey that covers the participants' job positions.

Using Voyant-tools a text analysis tool, the most frequent job functions held by the respondents with their respective frequencies based on the survey is as follows. CEO (8); manager (8); professor (7); owner (6); director (5). Which suggests that the survey purpose of aiming at getting responses from companies' executives falls within the methodology scope of the thesis.

The following question was to evaluate the knowledge quotient on the paradoxes existing in the business organizations of the respondents, the somewhat aware of the paradoxes that exist in the respondents business organizations has been the highest selected answer in term of percentages and topped the other options by having 39,58% (19 responses out of 48). Nonetheless, being extremely aware of the paradoxes in the respondents' organizations received a 16,67% (8 responses out of 48) followed by a 35,42% (17 responses out of 48) of respondents that are very aware of the paradoxes existing in their organizations with just above 8% (4 responses out of 48) where the respondents were not so aware of the paradoxes existing in their organizations. The results show a level of awareness of the paradoxes that exist in the respondents' organizations thus a fair knowledge on paradox in general as the figure below shows.

Are you aware of the existence of paradox tensions in your organization?

Answered: 48 Skipped: 0



ANSWER CHOICES	RESPONSES
Extremely aware	16.67% 8
Very aware	35.42% 17
Somewhat aware	39.58% 19
Not so aware	8.33% 4
Not at all aware	0.00% 0
TOTAL	48

Figure 6. Percentage distribution of total responses on paradox awareness.

The next question was designed to again evaluate the knowledge quotient on paradox and the openness to exploiting it in business organizations by asking the respondents to provide responses concerning the impact of adopting paradox on the organization's future success. Over 52% (25 responses out of 48) of the respondents agreed that embracing paradox and being able to cope with it is an important factor in the future business success, where 25% (12 responses out of 48) of the respondents strongly agreed to the proposition. Over 18% (9 responses out of 48) neither agree or disagree to the idea that paradox can achieve success in organizations and finally minority that is just over 4% (2 responses out of 48) completely disagree that paradox would achieve success in an organization as the figure below depicts.

Paradox literature claims that embracing paradox and be able to cope with it in an organization is very important for its future success. Do you agree?

Answered: 48 Skipped: 0

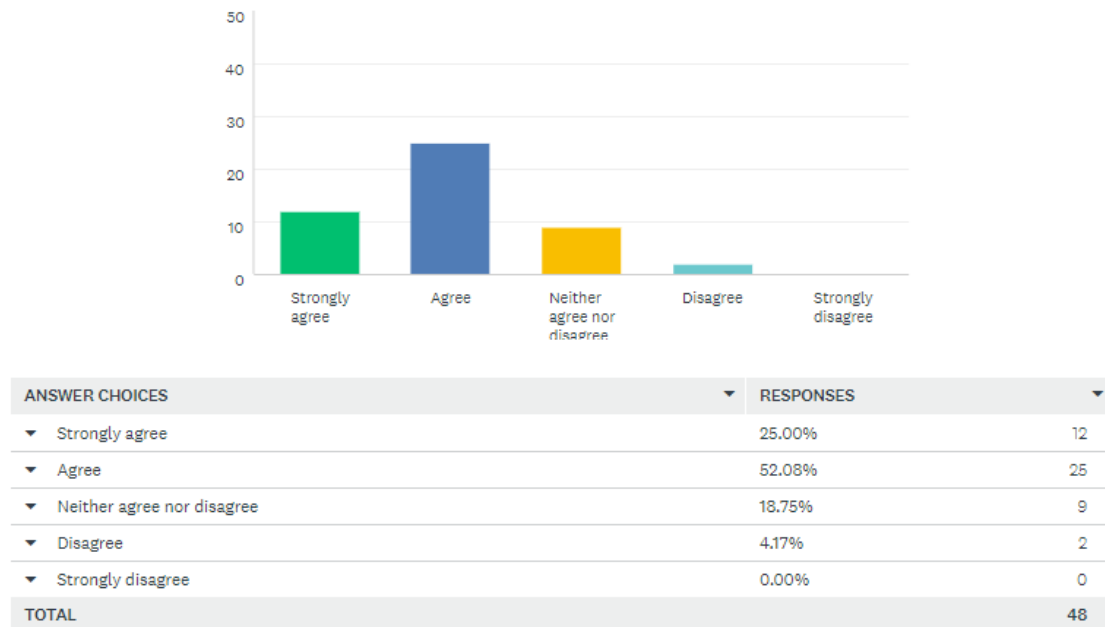


Figure 7. Percentage distribution of total responses on paradox impact of organization success.

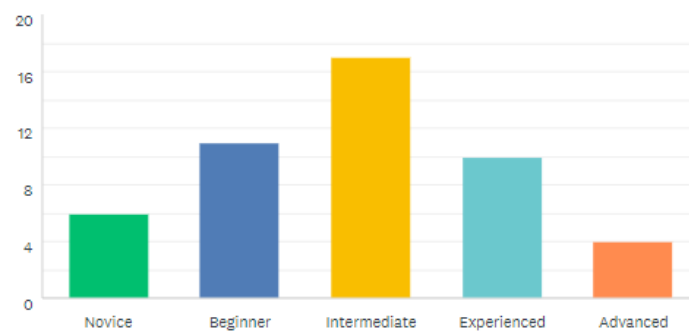
The results of the responses received from this question add weight to the results of first question that provided evidence of an awareness of the paradoxes that exist in the respondents' organizations thus a fair knowledge on paradox and on the paradox literature, moreover, it sustains and supports that paradox is an issue that needs to be addressed to be able to achieve greater success in organizations. Moreover, it answers the research question (1. b) of this thesis.

The following question was aimed to explore paradoxical thinking as a skill and a process to solving the paradoxical tensions arising in organizations by self-evaluation of the mastery level of each of the respondents. The responses to having an intermediate level to thinking in terms of opposites and polarities have topped the scale by just over 35% (17 responses out of 48), responses of being a beginner and an experienced level of mastery have scored both just over 20% (11

and 10 responses out of 48 respectively). Nonetheless, the number of responses on being a novice when it comes to the mastery of this skill and having an advanced level have received both low number of responses and got 12.5% and 8.33% (6 and 4 responses out of 48) respectively as the following figure depicts.

Paradoxical Thinking is the process of thinking in terms of opposites and polarities. How would you rate your level of mastery of this skill?

Answered: 48 Skipped: 0



ANSWER CHOICES	RESPONSES	
▼ Novice	12.50%	6
▼ Beginner	22.92%	11
▼ Intermediate	35.42%	17
▼ Experienced	20.83%	10
▼ Advanced	8.33%	4
TOTAL		48

Figure 8. Percentage distribution of total responses on paradoxical thinking skill mastery level.

This question was to complement the first asked ones that are about evaluating the knowledge quotient on the existence of paradox in organizations then the impact of paradox on organizations' success. A leader once has knowledge on paradox and aware of the paradoxes in an organization, he or she develops skills that help in resolving the paradoxical tensions thus gain more insights and chart patterns on the different approaches used to solve, cope or manage a paradox, further, this question contributed in providing an overview on the paradoxical

skills level of mastery within the leaders of the business organizations and suggest that there is a need to focus more on improving and enhancing paradoxical thinking skills.

The next question was an open-end question for respondents to have the freedom to express in their own words the kind of paradox(es) they have encountered and dealt with in their career and/or in their organization. This question was designed to contribute in identifying the kinds of paradox that are persistent in the respondents' organization and to identify the categories of paradox that are most troublesome for the respondents. 41 out the 48 respondents gave a response to this question thus leadership paradox (i.e. Paradox of leadership rank and skills), management and organization paradox (i.e. Scale and singular or unique) and strategy paradox (i.e. Short-term performance versus long-term development) were identified as categories in which the respondents formulated their perception of what kind of paradox they have encountered or dealt with in their organization.

The next question of the survey was designed to assess the readiness level to embrace and cope with paradox in organizations, 47 respondents out 48 gave responses and the average answer on a scale of 1 to 10 was 6 as the figure below depicts.

On a scale of 1 to 10, Please rate your readiness level to embrace and cope with paradoxes' tensions in your organization?

Answered: 47 Skipped: 1

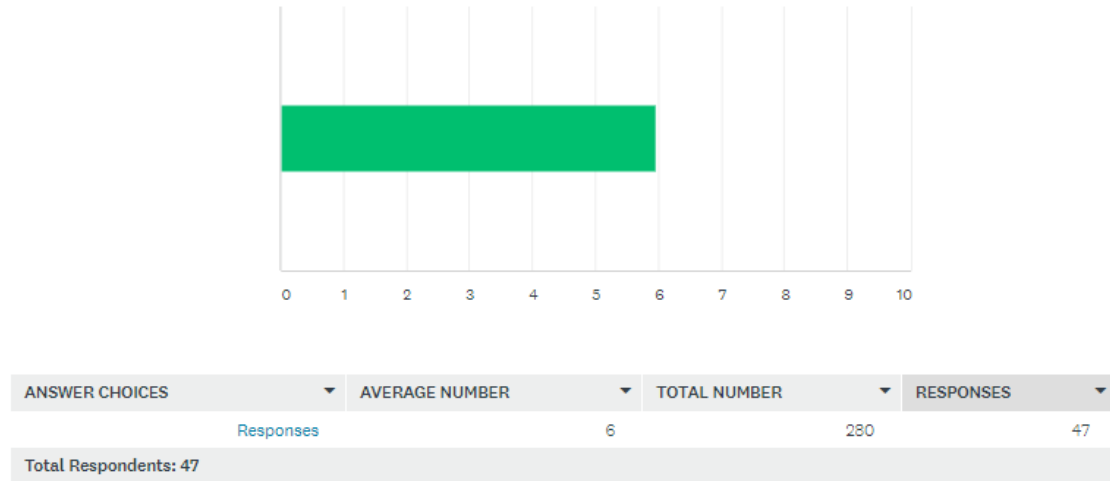


Figure 9. Average of total responses on the readiness to embrace and cope with paradox.

This question also aimed at complementing the previous questions by identifying the readiness level to cope and embrace paradox and prepare them for the following question that is to propose the concept of practicing to better handle paradox.

This question was designed to recap the previous questions' aims and propose an approach to handle the paradox tensions arising in organizations by asking the respondents their opinion about the possibility of practicing to get better at handling paradox. The respondents response "Yes, it could be" has topped the other given options by over 48% (22 respondents out of 48), moreover, the percentage of the response "Absolutely" to the practicing concept of paradox reached over 29% (14 respondents out 48) in favour of the possibility to practice getting better at handling paradox in the future as the following figure depicts.

In your view, is it ever justifiable to conclude that coping with paradox could be exercised or practiced in the aim of better understanding them and eventually better cope with them?

Answered: 48 Skipped: 0

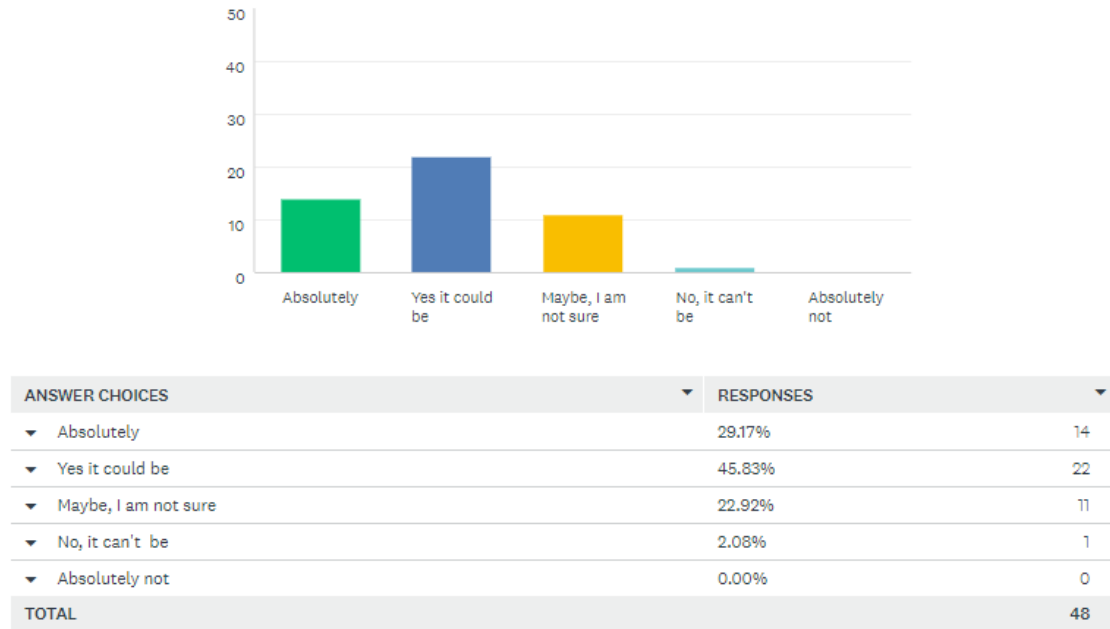


Figure 10. Percentage distribution of total responses on the concept of practicing to get better at handling paradox.

The results of this question answer and validate the research question (2. a) of this thesis and provides evidence that it is justifiable to conclude that practicing to handle paradox will make the practitioner better in embracing, managing and coping with paradox tensions in the future.

The following question was designed to sustain and support the concept of practicing to manage, cope or simply handle the paradox tensions in organizations by asking respondents to rate the impact of this method on an organization's success using on a scale of 1 to 10, the average of the responses was 7 taking in consideration the total responses was 46 out of 48 as the figure below shows.

Exercising to cope with paradox will affect organizations' decision making process performance. In your opinion, what impact this method will have on organizations' success?

Answered: 46 Skipped: 2

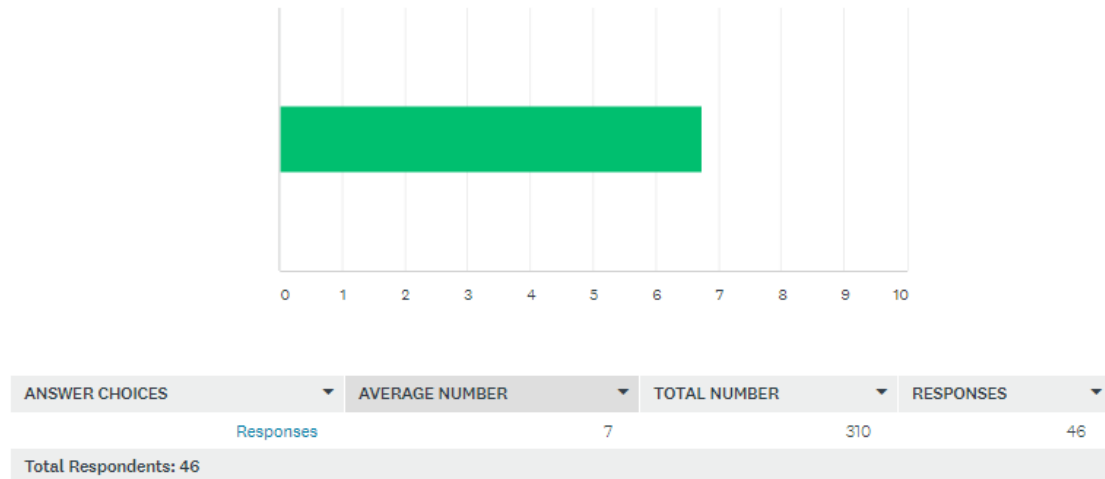


Figure 11. Average of total responses on the impact of practicing to handle paradox would affect an organization's success.

The result of this question also supports and validates the answer to the research question (1. b) and complement the previous questions results.

This last question of the survey was designed to provide an answer the research question (2. b) of this thesis by asking the respondents to choose the best form in which the proposed practice concept could be presented to deliver optimal results.

The percentage of the responses favouring a digitized business simulation platform has topped the other options by 50% (24 respondents out of 48) where minor percentage of the respondents chose between the other given options as the following figure depicts.

What would be, in your opinion, the best form to present a practice model to encourage leaders and managers exercise themselves to cope with the paradoxes of business?

Answered: 48 Skipped: 0

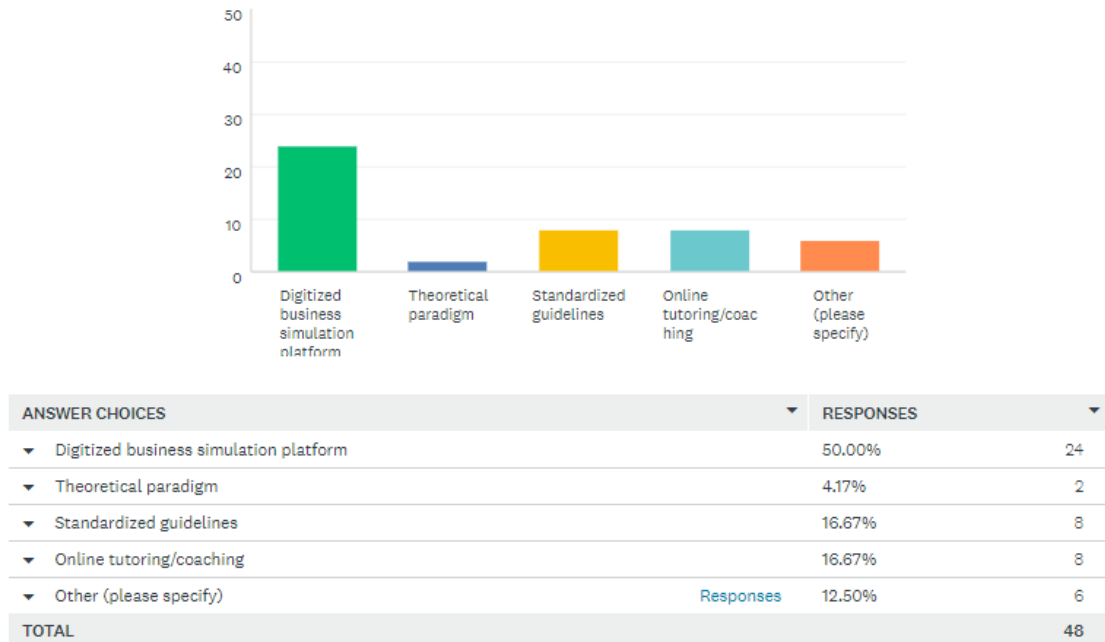


Figure 12. Average of total responses on the impact of practicing to handle paradox would affect an organization's success.

The respondents were given an option to specify their choices if none is available in the options provided and among the answers received, some respondents chose table-top exercises, theoretical paradigm and transformational applications demonstrating connectivity, reading philosophy and Business simulation and online coaching.

4. Conclusion

In this research both quantitative and qualitative survey design were used. The survey was introduced to collect from a predetermined sample of 48 respondents. The survey questions were designed to be open and closed-end

questions. The sample characteristics included adults who occupy an executive position in an organization and/or being owners of the businesses.

Based on the analysis of results received from the survey and the literature reviewed. Being able to embrace, cope and manage the paradox in organizations will have a great impact on their success in the fast-changing business world of today as validated by literature review and the survey results, hence reach beyond already existing knowledge requires to have the ability and the skills needed to make the leap between already known business practices, behavioural change and setting paradox as the beating heart of organizations.

The need to develop a utility that will help combine the paradox theory with practice is necessary to help provide different options for organizations than the ones they already have and contribute in opting for this approach that consists of behavioural change towards it that is conform with the brain plasticity literature and with the concept of complementing theory with practice (Katz and Rubin, 1999).

It was validated by brain plasticity and behaviour literature in this thesis that the moment a change in behaviour is decided and opted for in order to adopt a certain practice, the brain adjusts itself by altering its structure on different levels to ultimately alter its very own functions to satisfy the requirements of that behaviour consciously or unconsciously or both (Kolb and Whishaw, 1998b). Therefore, to be able to change a behaviour towards conceiving paradox, an individual is required to train himself or/and herself same as training oneself to learn to play a musical instrument, ride a bicycle or simply learn a new skill such as a foreign language, with time we get better at it and ultimately we start toying with it. However, in the case of paradox, if all the existing theory on paradox stays in theory premises, it will stay as theory and abstract no matter the

philosophical approach taken to explain it or help in resolving it same as riding a bicycle, one cannot simply learn by watching others do it. with paradox one needs to get hold of it by having a good knowledge about it and by practicing it, test it, make mistakes in resolving it and learn from the mistakes to improve in the future.

One of the targets of this thesis consequently was to contribute in developing a brain stimulus model – a utility with an aim of inciting the brain and stimulate it with the paradoxical issues of business- in a form of a business simulation that would contribute in helping and teaching leaders and future leaders how to acquire the skill of becoming paradoxical thinkers and help in the process of practicing and training to resolve the paradoxes arising in the business world which is going to be the topic of the following part.

5. Towards a Practical Utility for paradox

5.1. Introduction

The literature review of paradox, brain plasticity and behaviour of this thesis gave way to thinking about the idea of a practice utility that is set to combine the theory of paradox with practice in order to awaken and develop the latent paradoxical thinking abilities and shape them into skills in a controlled environment such as a business simulation by constantly challenging oneself to think paradoxically in terms of polarities and tensions with an aim of bringing the polarities together to formulate a holistic understanding of both and become able to make a decision concerning the future of a business organizations that satisfies at the same time both the opposites, in other words an answer that combines both the objectives of the opposites of a paradox while considering the environment in which they were evolved. The empirical data of this thesis has helped by providing deep insights on the paradox knowledge quotient amongst organization executives, provided valuable insights on the readiness of the senior executives to a behavioural change and helped in shaping the form in which the practice utility can be best presented to provide optimal results.

Existent business simulations offer the practitioners a comfortable way to exercise developing and implementing strategies (Doyle and Brown, 2000), while learning along the process of trial and error monitored by supervisor, professors, mentors and/business consultants. However, in these conventional simulations platforms, beating competition and winning more profit are the main drivers all under the process of learning, whereas in this proposed model, challenging the self to accept and try to understand the paradoxes faced comes first then developing or formulating counter measures, strategies and responses will automatically fall in the grid of conventional business simulation formats.

5.2. Basics of the practice utility

The idea of this utility is drawn based on the principle of plasticity of the brain to adapt to an adopted behaviour. The behaviour that is to be adopted is to change the way the paradoxical tensions of a business organization are handled by seeking an answer that satisfies both the values of both the poles of the tension in hand, thus allow a culture that is driven by this behaviour to develop that consists of having an answer that doesn't satisfy both values of the tensions is not enough. The success of this utility is based on concept of balance in the time of paradox that Charles handy has proposed in his book *The age of paradox* "*The secret of balance in a time of paradox is to allow the past and the future to co-exist in the present*" (Handy, 1995:63). In other words, in this utility allowing the past means going back to it. allowing the future means operating regardless of its uncertainties and invest efforts in foreseeing it. past and future co-exiting in the present is the utility model that brings together the business failure of the past and its alternative successful future together in one platform for a leader to make the best of both. The paradox theories, models, approaches or any of such shall be rendered into practice shape to be implemented in this utility i.e. Barry Johnson's concept of multiple right answers of a paradoxical tension (Johnson, 1992).

The following general technical prerequisites are necessary in the build up of the proposed utility.

- ✚ Gather the possible amount of encountered business paradoxes.
- ✚ Render the existing models, approaches, strategies, models and so on into a practice model (Technical/mathematical equation or model) that could be implemented in utility platform.

- ✚ Choosing the top spectacular business failures for example Kodak, Xerox or Blackberry to be used as simulation examples.
- ✚ Aim at a highly changing business environment by introducing artificial intelligence and other up to date technologies of such in the simulation.
- ✚ A platform concept to contain the different variables that will recreate the real-life events of the chosen organization and be able to simulate its future results based on inputs from the utility.

5.3. Learning process from the utility

5.3.1. Learning targets

By continuously training on the model a highly paradoxical cognition in identifying the different business paradoxes and their interrelations with an organization as well as a sense of observation that would contribute in recognizing patterns in business paradoxes and based on that, developing new different counter measures to face the given business paradox tensions will be developed.

Giving individuals the chance to flourish and discover their abilities by confronting the existing business paradoxes and to lead the example companies to a path that could have saved their business and prevented the business failure.

Individuals will have the freedom take the leadership position of one of the (used to be) most competitive companies in the world, thus competing against the former management made decisions that led the company to, so to say, its current state and then based on that, bring the company back to its purpose of existence course and keep on doing so while facing today's challenges.

Individuals shall be taught that analytical based decision-making is never enough to lead a company beyond already known business practices. Cognition, creativity and optimization are tools to be used in the process of grasping the understanding that everything has its paradox and the secret is in identifying it, that is to say paradoxical cognition, then practice thinking beyond those limits, while having two divergent targets in mind to satisfy, for the sake of the business ultimately.

Encourage leaders to understand that not everything is fact based, thus learn to keep in mind that things are not usually what they seem to be, in turn that will develop their instincts, business acumen and wisdom for the future business decision making challenges.

Increase self-development as well as team development, by improving skills on the both aspects.

Encourage internationalization by setting international competition between schools, universities and institutions of such to take part in the different roles of an organization i.e. accounting institutions shall take part as accountants in the accounting department of the organization, marketing institutions shall participate as marketers in the marketing department or outsourced based on the organizations state and the leadership decisions and so on, every institution might take part in the process of building the company of choice again, promote internationalization and enhance knowledge sharing.

5.3.2. The learning process

The learning process in this practice utility is based on the main steps of the learning model proposed in this thesis; the idea of this learning model was

adopted from the learning cycles of Kolb's experiential learning cycle (Li and Armstrong, 2015) then revised to suit the purpose of this work, taking in consideration that the learning magnitude intended can only be achieved by following the steps proposed as they are proposed and focusing on only some steps of this learning cycle is futile.

The learning and self-development starts by inciting oneself to experience change in behaviour, that is to say, to find the will to embrace paradoxes considering the pros and cons surrounding it. Next is the contemplation step which holds the cradle for developing paradoxical cognition skills while exploring different ways, methods and approaches to recognize the paradoxes encountered in each problem, issue or a decision to make. Following is the awareness step, at this point become able to recognize the paradoxes, observe them and learn their behaviour and interactions and ultimately recognise their patterns, later comes the step of conceptualization, in which an understanding of paradoxes is embryonic and the ideas formed about them are yet to bear fruit of success. The following step the results of the process of applying the previous steps altogether are shown, gathering the most salient tensions and developing a plan of action to proceed in leading the company to a better future.

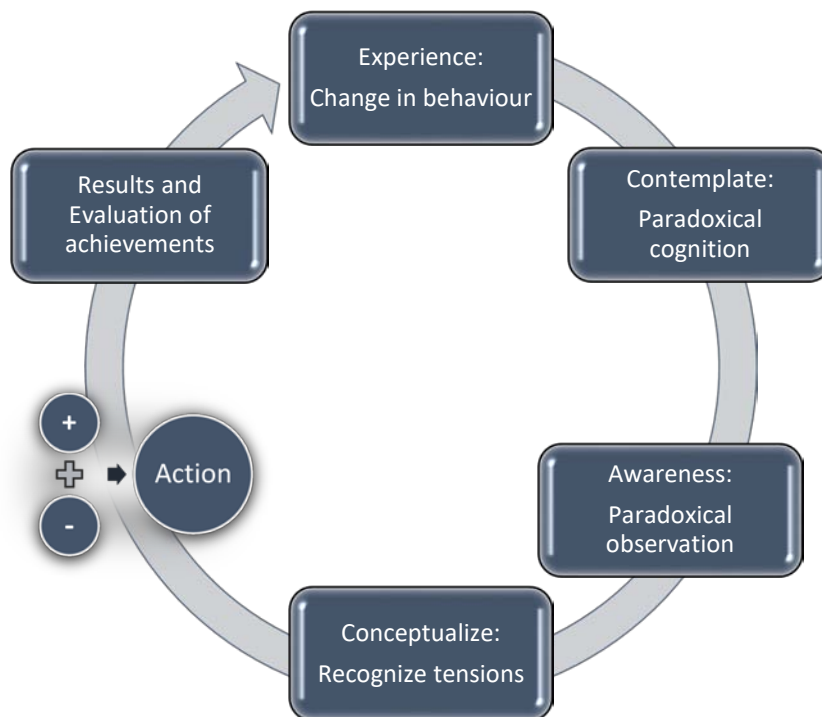


Figure 13. Learning process on the basis of continuous training using the proposed practice utility.

5.4. Main objective and criteria for success by using the utility

The main objective by using this utility is the quest to find the will to change the behaviour, accepting that paradoxes pervade in everything aspect of business in particular and in life in general and to recognize the need to develop the latent paradoxical thinking abilities by facing head to head the paradoxes of business. Nonetheless, as it was said, "two captains, one ship, no destination" (Okogba, 2017). The utility bears only one individual to lead the organization, have the opportunity to be in charge and lead is of utmost importance, either alone against the environment created by the simulator or by having a team of choice to lead against another that will give the simulation even a greater impact.

Once one chooses to adopt and learn from this model, success in achieving results becomes the side outcome and ceases being the quest, winning or losing will lose

meaning. Competition becomes irrelevant and the real quest, that is purpose, reveals itself which includes both knowledge and self-exploration. Nevertheless, an individual shall become the judge of his own self based on the progress made, the difference in perception and the way of thinking, the difference in behaviour and the broader unrestricted view while succeed in looking at world as an abundant source of everything becomes the main winning criterion which will be repeated constantly during the training, at the same time, according to Colin Price's empirical study of world's super accelerators, in other words, companies with high performances that belong to the top quintile of the world's most successful organizations, the nowadays super accelerator companies have tendency to be good in satisfying simultaneously two purposes out of the four proposed by the author as follows:

- ✚ Understanding the customer needs i.e. winning by understanding customers' needs for example: Apple, Tencent Holdings and Cigna.
- ✚ Resource allocation to match given opportunities for example: The Priceline group, Danaher and Blackrock.
- ✚ Execution i.e. winning by outcompeting competitors for example: Tata consulting service, Gilead sciences and Biogen.
- ✚ Talent acquisition i.e. winning by excelling in managing talented workforce for example: Alphabet and Starbucks.

(Price and Toye, 2017)

It is equally important to emphasize that in the early stages of the training having one purpose in mind and achieving it as Price argued will ultimately lead an organization to the top fortune 500 of the world, however, according to the same author being able to satisfy two of the above mentioned purposes will lead the organization to belong to the top quantile of the fortune 500, that is to say that,

achieving one or two of these purposes could be taken as parallel winning criteria when training on the utility.

The more time that would be spend trying to use both the polarities of a given paradox the better the practitioners becomes. Therefore, the progress of a practitioner in comparison to the time spent on training is depicted in the following figure where the levels that could be reached are not limited and entirely dependent on the practitioners activeness and deftness in the quest of conquering paradox in business organizations.

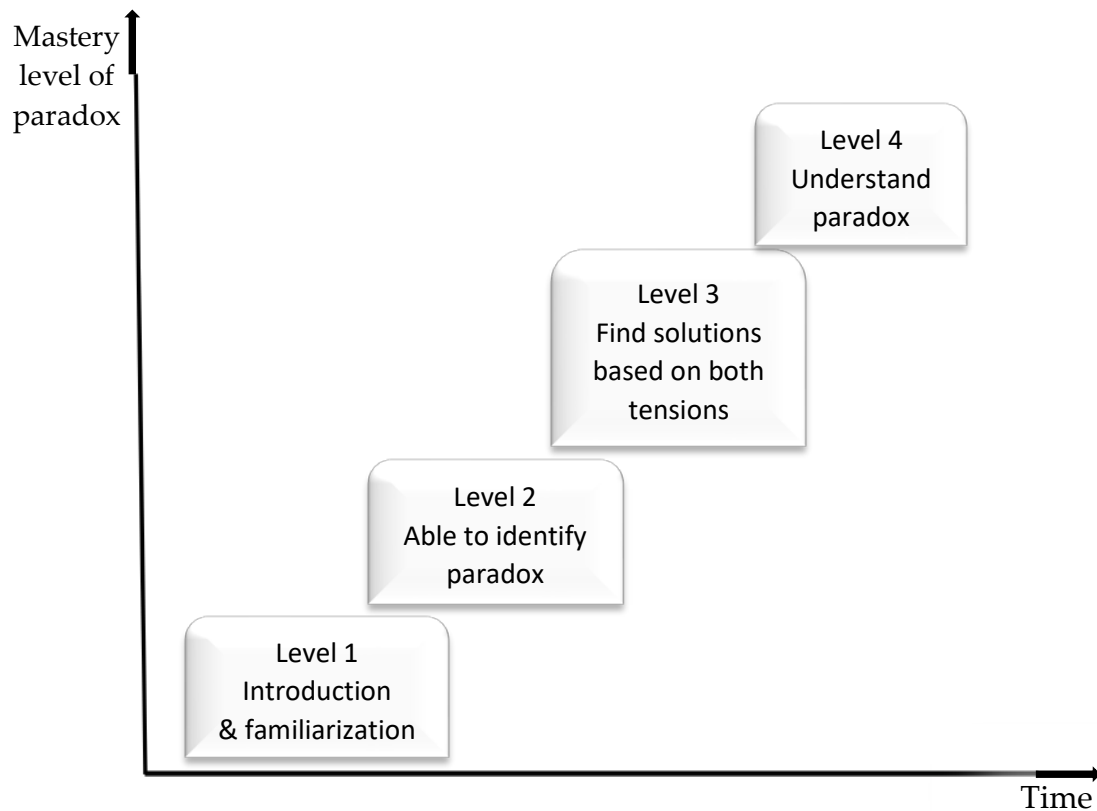


Figure 14. Practice in relation to mastery level of paradox and time.

5.5. Digitization of the model and its structure

The utility will be an online based platform. The online features shall comprise a real reconstruction of the three main companies mentioned in this thesis and bring them back to the time of being the world's leaders in their respective markets and just about to take a turn to failure including for instance the sales and marketing strategies, the market share, the stock value and all other aspect of business of these organizations. The utility as well shall comprise online features such as real life and simulated hunt for talent acquisition to allow the leader to hire the team that suits his or her future plans for the company case undertaken, have access to competition news, market updates and build communication bridges with his/her team members if chosen to be from same or different institutions. Virtually, this utility creates combines the past business failures and up to date technologies to create an alternate virtual reality in which the companies chosen could have seen greatness and success where a parallel reality in which the end result is to always challenge oneself paradoxically, reach for meta level solutions and be ahead of the business world by reaching out for solutions that did not exist at that time.

The exact structural pillars of the utility are yet to be developed in further research yet the general guidelines on what the final product will contain in different pages of the stimulus platform is as follows:

- ✚ Home: in this page contains an executive summary of the purpose of this utility including guidelines on start and end of the training and most importantly, the challenges that the company is undertaking once the new leadership and probably a new team has taken control.
- ✚ Commands: This page is considered to be the main page of the model since it comprises the paradoxical cognition and observation processes, the awareness of the tensions and the answer to those

divergent poles are to be made on this page as well as the general decision-making process concerning the organization with news feed on every aspect of its markets and updates on current day to day issues.

- ✚ Conclusions: This page is a monitoring page it provides performance evaluation, activeness, business acumen evaluation and other results of such thus having the opportunity to work on the highlighted lacks from the results received taking in consideration that the company is simulated continuously based on the factors and variables of the business environment imposed by the simulation.
- ✚ Environment: in this page the results of decisions depending on the cap of the company is simulated in long term and in short term readings, where the leader alone or with his or her team can notice hints of market changes, competition change or any changes of such hence have possibilities to adjust accordingly.
- ✚ Rendition: in this page we find the performance results and the company status and position in the market plus forecasts in addition to individual performance of the leader and the team members compared to an existing simulation of what the business would become according to the business variables the AI included in the program creates.

This proposed structure is up to changes; however, the result is not only to develop a new platform, but also to be able to adapt the principles of this model to the existing business simulation platforms.

5.6. Summary of the utility

To summarize the contents of this utility, all considered as shown in the above mentioned as not to digress, the trainee takes the role of a leader in the chosen multi-billion company and faced with business paradoxes of the time of the great success and just on the brink of the collapse of this company as well as with the paradoxes faced nowadays, hence his or her task in to find responses, methods or ways for the company to amplify those business paradoxes with responses that satisfy both the opposites given or faced during the process, while taking in consideration the impact of the four levels of thinking proposed by Price in his book *"Accelerating performance"* (Price and Toye, 2017). Thus, the learning outcomes from the training will result in the follows:

- ✚ A self-challenging mindset with an aim of changing behaviour, thus, altering brain plasticity to our new adopted behaviour and clinging on "I need a satisfactory answer to both" motto.
- ✚ Understanding how to impede the non-value-added decisions by developing new patterns in dealing with business paradoxes and finding answers that satisfies them.
- ✚ Learn to relish uncertainty, ambiguity, chaos and non-conventionalities in decision making.
- ✚ Resent dogmas in all forms in the organization.

The meritocracy system in this model is entirely derived from first, changing the behaviour and then in self-development of the leader and his team if chosen that will result in a change of perception, in other words, the sole merit to be gained as being a leader is to be able to see things in other perspectives and understand them in a different way than used to, be able to exercise and develop paradoxical thinking and observation skills, based on that, develop paradoxical patterns that

would contribute in boosting the current knowledge in order to have access to different levels and most importantly in order to pinpoint and tick the awareness box of the self-confinement that surround us and unequivocally achieve beyond expected results.

6. GENERAL CONCLUSION

What I have discovered is that paradox exists and pervades in every aspect of business and in every aspect of life altogether, as a matter of fact similarities in the literature about paradoxes that are the opposites of aspects of business that create chaos, ambiguity and uncertainty are abound, hence when these opposites are juxtaposed, coped with, resolved, navigated or any approach of such with the patterns long developed in business management and business leadership alike are apparent, one is able to hone solutions that are innovative, revolutionary and at the same time outlandish. However, the understanding of the purpose of the use of paradox differs from one source to another, and from one author to another. In this thesis the interpretation of paradox per se is relevant only if paradox is deployed with the help of the practice utility proposed in the future business organizations' leadership, correspondingly, the development of the paradoxical thinking as latent skills will depend on the magnitude of this deployment.

In order to provide grounds for this latency of paradoxical thinking abilities and justify the need for practice, a reach out for a different fields of study apart from business such as brain plasticity and behaviour helped much is clarifying the necessity of developing a practice utility. Brain plasticity is a science that studies the brain changes that are initiated by changes from different factors that I narrowed to only behavioural changes and environmental stimuli. Consequently, I syllogized that the paradoxical thinking abilities are latent same as every ability possessed or planned to acquire.

To render and combine the theory of the literature of this thesis into a more pragmatic and practical approach, I have proposed the idea of developing a practice utility; this utility is not only sought for training purposes, it is sought as

well to provide support for learning and open doors for future business leadership, brain and behavioural changes researches.

In this thesis, the limitations are set for the reached-to literature that would help in understanding paradox and developing the practice utility. Brain plasticity and behaviour contribution to this work is limited to the consequent changes of the brain by changing a behaviour in order to embrace, accept, navigate paradox or any approach of such in business and support and sustain the idea of practicing it to reach a holistic understanding of it thus use it to shape the future of business and organizations.

6.1. Contributions

This thesis has contributed by providing a theoretical approach of the missing side in paradox theory literature that seems to be the dominant stream. This theoretical approach consists of a practice utility and stream for trial error concept of paradox manifestation in the business world.

6.2. Limitations and suggestions for future research

With the purpose of self-development and the quest for knowledge by involving and embracing the paradoxes of business, one avenue for further study would be research into developing the aspects of the practice utility proposed in this work by broadening the research scope to other science fields to provide different insights.

There are a couple of limitations in completing the methodology part of this work; it is extremely difficult to get responses for the questions asked from leaders due to countless reasons: availability, receiving many similar requests

and other reasons of such, that is why, the process of preparing survey has endured many changes to finally settle for 9 questions and settled for 48 responses.

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8. APPENDIX 1

The participation in the survey was entirely voluntary and responses were treated with strict confidence and data will not be shared with any third parties or used for commercial purposes.

Survey link: <https://www.surveymonkey.com/r/WF6DNDB>

Paradox and Business management

The aim of this questionnaire is to evaluate the knowledge quotient on paradox tensions in organizations and the need for a model that would help executives cope with these tensions.

Paradox can be defined as
 "contradictory yet interrelated elements—elements that seem logical in isolation but absurd and irrational when appearing simultaneously"
 (Lewis, 2000: 760).

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1. Please state you Name(If possible), Industry, and Job function

2. Are you aware of the existence of paradox tensions in your organization?

- | | |
|---------------------------------------|--|
| <input type="radio"/> Extremely aware | <input type="radio"/> Not so aware |
| <input type="radio"/> Very aware | <input type="radio"/> Not at all aware |
| <input type="radio"/> Somewhat aware | |

3. Paradox literature claims that embracing paradox and be able to cope with it in an organization is very important for its future success. Do you agree?

- ☐ Strongly agree
 ☐ Disagree
☐ Agree
 ☐ Strongly disagree
☐ Neither agree nor disagree

4. Paradoxical Thinking is the process of thinking in terms of opposites and polarities. How would you rate your level of mastery of this skill?

- ☐ Novice
 ☐ Experienced
☐ Beginner
 ☐ Advanced
☐ Intermediate

5. What kind of paradox(es) you have encountered and dealt with in your career and/or in your organization?

Please specify

6. On a scale of 1 to 10, Please rate your readiness level to embrace and cope with paradoxes' tensions in your organization?


0 : Not ready at all 5: Getting there 10: Perfectly ready

7. In your view, is it ever justifiable to conclude that coping with paradox could be exercised or practiced in the aim of better understanding them and eventually better cope with them?

- ☐ Absolutely
 ☐ No, it can't be
☐ Yes it could be
 ☐ Absolutely not
☐ Maybe, I am not sure

8. Exercising to cope with paradox will affect organizations' decision making process performance. In your opinion, what impact this method will have on organizations' success?

0: Low impact 5: Medium impact 10: high impact



9. What would be, in your opinion, the best form to present a practice model to encourage leaders and managers exercise themselves to cope with the paradoxes of business?

- ☐ Digitized business simulation platform
- ☐ Theoretical paradigm
- ☐ Standardized guidelines
- ☐ Online tutoring/coaching
- ☐ Other (please specify)

DONE